

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 6515

Petition of Vermont Electric Power Company,     )  
Inc. for a Certificate of Public Good pursuant to     )  
30 V.S.A. 248(j) for the permanent installation     )  
of the capacitor bank at the Georgia substation,     )  
located in the Town of Georgia, Vermont, for     )  
the purpose of reinforcing the transmission         )  
system

Order entered: 8/14/2001

**I. INTRODUCTION**

This case concerns a petition filed by Vermont Electric Power Company, Inc. ("VELCO" or "Company") pursuant to 30 V.S.A. § 248(j). In its petition, VELCO requests Board approval of the permanent installation of a capacitor bank at the Georgia substation, located in the Town of Georgia, Vermont, for the purpose of providing system voltage support.

VELCO filed proposed findings, a proposed order and a proposed Certificate of Public Good ("CPG") on May 30, 2001. Notice of the filing was sent on June 12, 2001, to all parties specified in 30 V.S.A. § 248(a)(4)(C) and to any other interested persons. Notice was also published in the *St. Albans Messenger* on June 8, 2001, and June 15, 2001. The notice stated that any party wishing to submit comments as to whether the petition raises a significant issue with respect to the substantive criteria of 30 V.S.A. § 248, needed to file comments with the Board on or before July 13, 2001. The Vermont Department of Public Service and the Agency of Natural Resources filed comments in response to the notice. The comments do not raise a significant issue with respect to the substantive criteria of 30 V.S.A. § 248, and no party requested a hearing.

The Board has reviewed the petition and accompanying documents and concludes that, pursuant to 30 V.S.A. § 248(j), a CPG should be issued without the notice and hearings otherwise required by 30 V.S.A. § 248.

## **II. FINDINGS**

Based upon the petition and accompanying documents, the Board hereby makes the following findings in this matter.

1. VELCO is a company within the meaning of Section 201 of Title 30, Vermont Statutes Annotated and, as such, is subject to the jurisdiction of the Board (the "Board") pursuant to Section 203 of Title 30. Pet. at 1.

2. Following the issuance of the Board's Orders Re: Waivers under 30 V.S.A. Section 248(k) in Docket 6375, VELCO completed an emergency capacitor bank installation at the Georgia substation, as authorized by those Orders and as part of the measures taken by the Company to ameliorate the potential for transmission system voltage collapse resulting from the Plattsburgh, New York phase angle regulator ("PAR") failure in March 2000. Pet. at 5.

3. The waivers expire on June 1, 2001, unless the Board issues a certificate of public good authorizing the continued maintenance of the capacitor bank at the Georgia substation. Pet. at 7.

4. The facilities in question, in addition to a 115kV, 24.75mVA capacitor bank, include a disconnect switch, one breaker, reactors, tap point potential transformers and necessary control equipment. The footprint of the substation was expanded by an area of thirty by sixty feet to accommodate this equipment. The cost of the facilities was \$188,000; the cost of installation was \$83,000. Johnson pf. at 4-5.

### **Orderly Development of the Region**

[30 V.S.A. § 248(b)(1)]

5. The capacitor bank project will not unduly interfere with the orderly development of the region. The substation is in an isolated area, approximately 2500 feet from the nearest residence, and lies within an existing transmission right-of-way. The new facilities are contained within an expansion of the substation of only thirty by sixty feet, are visually consistent with the existing

substation, and are shorter in height than other facilities at the substation. Johnson pf. at 2-6; exhs. 2, 3, 4, 5, 6 and 7.

### **Need for Present and Future Demand for Services**

[30 V.S.A. § 248(b)(2)]

6. The installation of the capacitor bank is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy efficiency and load management measures. This finding is supported by findings 7 and 8, below.

7. Because the demand that the facilities serve is not one of energy, but of reactive power for voltage support, conservation, energy efficiency and load management measures are not feasible alternatives to the project. Johnson pf. at 5.

8. Generation, which can also provide reactive power, is a theoretical alternative, but, as voltage support is needed today, as well as in the future, it would not be prudent to await the development of commercial generation. Id.

### **System Stability and Reliability**

[30 V.S.A. § 248(b)(3)]

9. The capacitor bank is necessary to maintain voltage support and to insure reliable first contingency operation of the transmission system. Thus, the project will not adversely affect system stability and reliability but, rather, will promote the same. Johnson pf. at 2, 5.

### **Economic Benefit to the State**

[30 V.S.A. § 248(b)(4)]

10. The project will result in an economic benefit to the State. Proper voltage support is necessary for good power quality and reliability. These benefits cannot be readily quantified in economic terms, but will flow through to electric customers as smoother operation of their equipment and reduced risk of power outages. Johnson pf. at 6-7.

**Aesthetics, Historic Sites, the Natural Environment  
and Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

11. The project will not have an undue adverse affect on aesthetics, historic sites, and water purity, the natural environment or the public health and safety, based upon the criteria specified in 10 V.S.A. §§ 1424a(d) and 6086(a)(1) through (8) and (9)(K). This finding is supported by findings 12-14, below.

12. The Georgia substation is in an isolated location, and is approximately 2500 feet from the nearest landowner. The capacitor bank and associated facilities are shorter in height than the pre-existing facilities, are visually consistent with the existing substation equipment, and do not significantly increase the visibility of the substation. They do not result in an undue adverse aesthetic impact. Johnson pf. at 5-6; exhs. 2, 3, 4, 5, 6 and 7.

13. The property was reviewed by a qualified archaeological/historic sites consultant, who found no evidence of historic sites or sites of archaeological interest at the project location. Johnson pf. at 6.

14. The property was reviewed by a qualified wildlife and wildlife habitat consultant, who found that the project will not have an undue adverse impact on rare or irreplaceable natural areas or endangered species. There is no evidence of the existence of rare, threatened or endangered species of wildlife, and no reason to conclude that the area constitutes critical wildlife habitat. Johnson pf. at 6.

**Water and Air Pollution**

[10 V.S.A. § 6086(a)(1)]

15. The project will not result in discharges onto the ground or air emissions, and will result in no undue air or water pollution. Johnson pf. at 6.

**Noise**

[30 V.S.A. § 248(b)(5)]

16. The project is located in a remote area. The new equipment will not produce noise sufficient to cause undue annoyance to any person. Id.

**Outstanding Water Resources**

[30 V.S.A. § 248(b)(8) and 10 V.S.A. § 1424(a)(d)] and

**Headwaters**

[10 V.S.A. § 6086(a)(1)(A)] and

**Floodways**

[10 V.S.A. § 6086(a)(1)(D)] and

**Streams and Shorelines**

[10 V.S.A. § 6086(a)(1)(E) and (F)] and

**Wetlands**

[10 V.S.A. § 6086(a)(1)(G)]

17. The area does not contain, and is not contiguous to, any outstanding resource waters, headwaters, floodways, streams, shorelines or wetlands. The new equipment is not located within a flood plain. Id.

**Waste Disposal**

[10 V.S.A. § 6086(a)(1)(B)]

18. No wastes will be disposed of at the site, and no waste materials or harmful or toxic substances will be injected into ground waters or wells. Id.

**Water Conservation**

[10 V.S.A. § 6086(a)(1)(C)] and

**Sufficiency of Water and Burden on Existing Water Supply**

[10 V.S.A. § 6086(a)(2) and (3)]

19. The project will not require additional water. The substation already has a sufficient supply and the project will not cause an unreasonable burden on the existing supply. Id.

**Soil Erosion and Capacity of the Soil to Hold Water**

[10 V.S.A. § 6086(a)(4)]

20. The project will not result in soil erosion. The topography of the affected area is flat, and all soils are appropriately planted or otherwise covered with material. Only a small amount of soil has been removed to accommodate the expansion of the substation, and the capacity of the

land to hold water will not be substantially reduced so as to cause a dangerous or unhealthy condition. Id. at 3, 6.

**Traffic Congestion and Safety**

[10 V.S.A. § 6086(a)(5)]

21. The project will not result in any increase in traffic, and therefore will not result in traffic congestion or traffic safety hazards. Id. at 6.

**Educational, Municipal and Governmental Services**

[10 V.S.A. § 6086(a)(6) and (7)]

22. The project will not place an unreasonable burden on the ability of any governmental unit to provide educational, municipal or governmental services. The project will increase the grand list of the municipality and therefore should enhance the ability of the municipality to provide services. Id. at 6-7.

**Aesthetics, Historic Sites, Rare and Irreplaceable Natural Areas**

[10 V.S.A. § 6086(a)(8)]

23. The project will not have an undue adverse effect on aesthetics or historic sites. *See* Finding No.11, above. The project is not located on, and does not affect any rare or irreplaceable natural area. Id. at 6.

**Effect on Public Investments**

[10 V.S.A. § 6086(a)(9)(K)]

24. The project is not adjacent to any public investments, as defined by the statute, except for the transmission facilities with which it interconnects and which it supports. Therefore, the project will not endanger public or quasi-public investments or adversely affect the function, use or enjoyment of any such investment. Id. at 6-7.

**Compliance With Electric Energy Plan**

[30 V.S.A. § 248(b)(7)]

25. The DPS has determined, in a letter dated August 10, 2001, that the project, as described in the filings in this case, is consistent with the Vermont 20-Year Electric Plan, in accordance with 30 V.S.A. § 202(f).

### **Existing Transmission Facilities**

[30 V.S.A. § 248(b)(10)]

26. This project will have no adverse affect on Vermont customers or utilities, and in fact, will improve reliability of existing service. Id. at 6-7.

### **III. CONCLUSION**

Based upon the foregoing findings, the project is of limited size and scope; the petition does not raise a significant issue with respect to the substantive criteria of 30 V.S.A. § 248; and the public interest is satisfied by the procedures authorized by 30 V.S.A. § 248(j). Furthermore, the project is needed to ensure stable and reliable electric service, and will promote the general good of the State of Vermont by providing such service and avoiding the uneconomic dispatch of generation for reliability purposes.

### **IV. Order**

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that retention of the capacitor bank and associated facilities as a permanent modification to the Georgia substation, as described in the evidence and plans submitted in this proceeding by Vermont Electric Power Company, Inc., will promote the general good of the State of Vermont in accordance with 30 V.S.A. § 248, and a certificate of public good to that effect shall be issued.

Dated at Montpelier, Vermont, this 14<sup>th</sup> day of August, 2001.

s/Michael H. Dworkin )  
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 )  
s/David C. Coen )

PUBLIC SERVICE

BOARD

) ) )  
s/John D. Burke ) OF VERMONT

OFFICE OF THE CLERK

FILED: August 14, 2001

ATTEST: s/Susan M. Hudson  
Clerk of the Board

*NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or mail) of any technical errors, in order that any necessary corrections may be made. (E-mail address: Clerk@psb.state.vt.us)*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.*